SYSTEM, METHOD, AND APPARATUS FOR OPTIMAL
PERFORMANCE SCALING OF STORAGE MEDIA
Jean R. Chang et al.
IBM Docket No.: TUC920030104US1
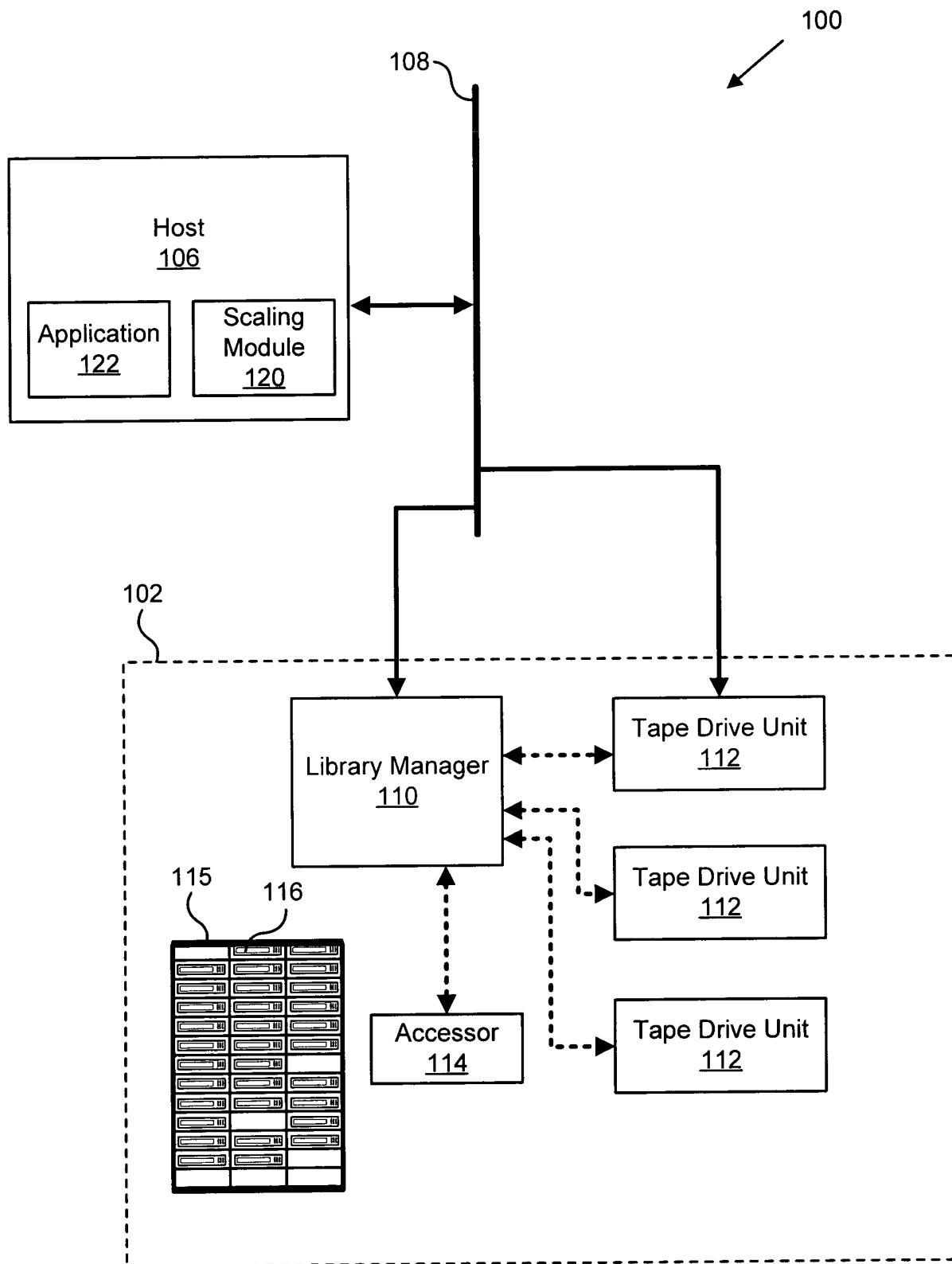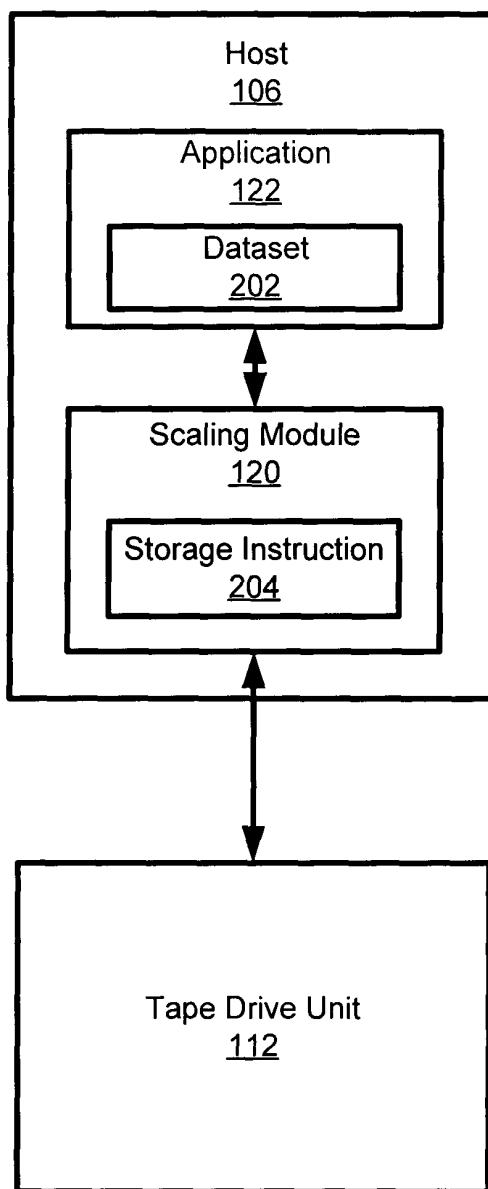Kunzler & Associates D cket No.: 1500.2.27 (JCK)

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FIG. 1

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200

```
┌─────────────────────────────────────────┐
│                  Host                     │
│                  106                      │
│   ┌─────────────────────────────────┐    │
│   │          Application             │    │
│   │             122                  │    │
│   │   ┌─────────────────────────┐    │    │
│   │   │        Dataset           │    │    │
│   │   │         202              │    │    │
│   │   └─────────────────────────┘    │    │
│   └─────────────────────────────────┘    │
│                  ↕                        │
│   ┌─────────────────────────────────┐    │
│   │       Scaling Module             │    │
│   │          120                     │    │
│   │   ┌─────────────────────────┐    │    │
│   │   │  Storage Instruction     │    │    │
│   │   │         204              │    │    │
│   │   └─────────────────────────┘    │    │
│   └─────────────────────────────────┘    │
└─────────────────────────────────────────┘
                   ↕
┌─────────────────────────────────────────┐
│                                           │
│           Tape Drive Unit                 │
│                112                        │
│                                           │
└─────────────────────────────────────────┘
```

FIG. 2

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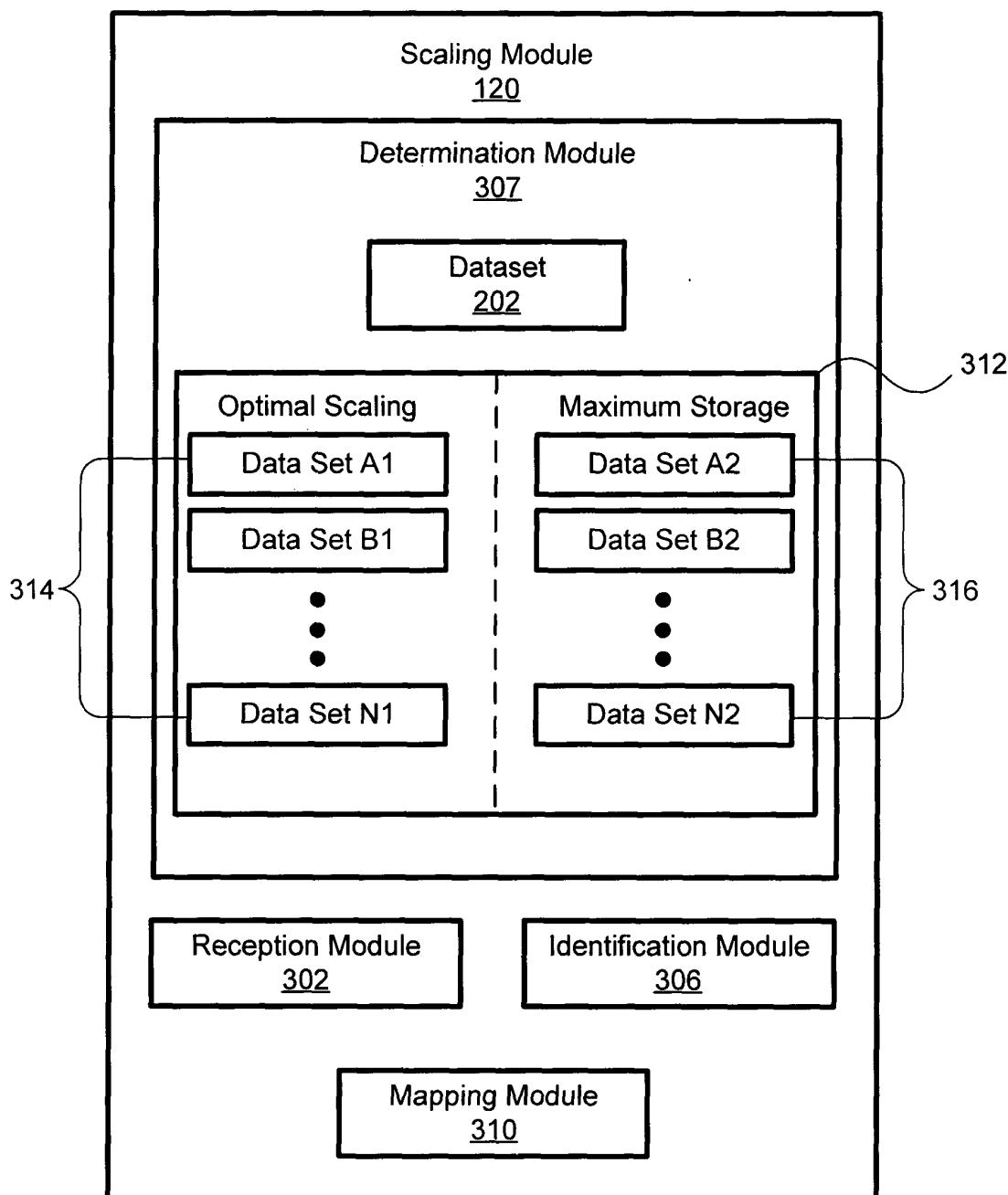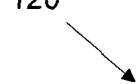
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120

Scaling Module
120

Determination Module
307

Dataset
202

312

Optimal Scaling	Maximum Storage
Data Set A1	Data Set A2
Data Set B1	Data Set B2
• • •	• • •
Data Set N1	Data Set N2

314

316

Reception Module
302

Identification Module
306

Mapping Module
310

FIG. 3

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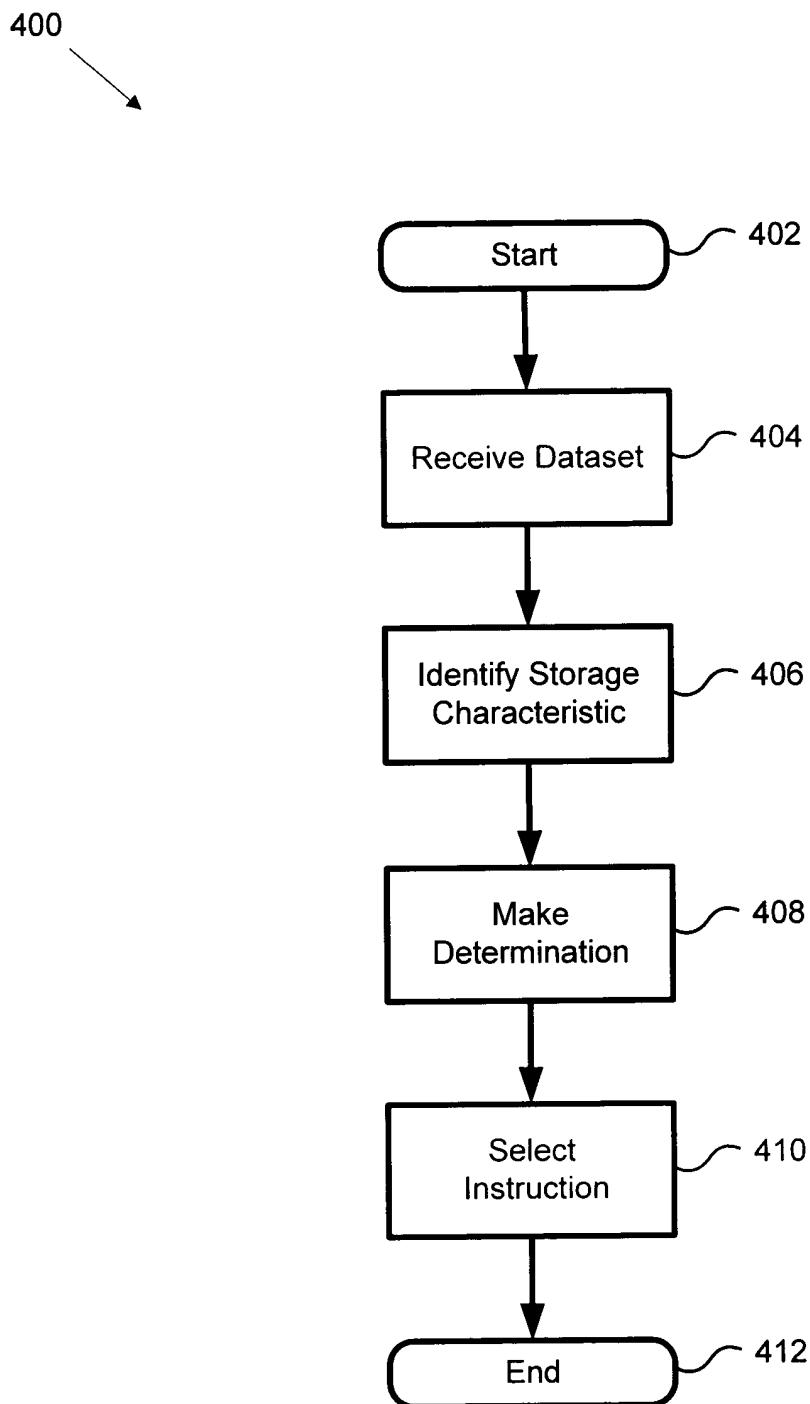Kunzler & Associates Docket No.: 1500.2.27 (JCK)

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400

Start — 402

Receive Dataset — 404

Identify Storage Characteristic — 406

Make Determination — 408

Select Instruction — 410

End — 412

FIG. 4

PAGE 5/5

Start ~ 502

New Tape Request ~ 504

Identify Storage Characteristic ~ 506

500

Performance Scaling? ~ 508

Yes → Send Scale Drive Command ~ 510

Media initialized to optimal performance ~ 512

Media tracked and used to optimal capacity ~ 514

No

Send Full Capacity Command ~ 516

Media tracked and used to full capacity ~ 518

End ~ 520

FIG. 5